



Product Application: laboratory chemicals, research use only (RUO)

This Safety Data Sheet is prepared in accordance with Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878. Classification according to Regulation (EC) No 1272/2008 (CLP).

### I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	CATALOGUE NUMBERS	COMPONENTS
Take5™ 1 kb DNA Ladder	DNL01XX	1. Take5™ 1 kb DNA Ladder 2. Take5™ Loading Dye, 6X
Take5™ 100 bp DNA Ladder	DNL02XX	1. Take5™ 100 bp DNA Ladder 2. Take5™ Loading Dye, 6X
Take5™ 50 bp DNA Ladder	DNL03XX	1. Take5™ 50 bp DNA Ladder 2. Take5™ Loading Dye, 6X
Take5™ HR DNA Ladder	DNL04XX	1. Take5™ HR DNA Ladder 2. Take5™ Loading Dye, 6X

XX – can be different numbers/letters depending on product sizes

#### COMPANY:

highQu GmbH  
Untere Schloßstrasse 25  
76703 Kraichtal  
Germany  
T: +49 7250 33 13 401  
F: +49 7250 33 11 413  
[info@highQu.com](mailto:info@highQu.com)  
[www.highQu.com](http://www.highQu.com)

**Call 24 hours: Detoxification +49 (0)30 30686 700**

### II. HAZARDS IDENTIFICATION

Component: 1.

Take5™ 1 kb DNA Ladder or  
Take5™ 100 bp DNA Ladder or  
Take5™ 50 bp DNA Ladder or  
Take5™ HR DNA Ladder

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 This mixture is classified as not hazardous according to regulation (EC) 272/2008 [GHS]

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void

Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification was made according to the latest editions of the EU-lists and expanded upon from company and literature data.

Label elements: This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

Safety phrases:

35 This material and its container must be disposed of in a safe way.

Other hazards: No information available

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable

### III. COMPOSITION/INGREDIENT INFORMATION

Mixture:

Contains non-hazardous components in aqueous buffer.

Hazardous ingredients (per CLP Regulation):

- Glycerol

CAS No: 56-81-5

EC No: 200-289-5

Conc.: <5%

Classification: Not classified

### IV. FIRST AID MEASURES

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

Product Application: laboratory chemicals, research use only (RUO)

This Safety Data Sheet is prepared in accordance with Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878. Classification according to Regulation (EC) No 1272/2008 (CLP).

After skin contact: Generally, the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Induce vomiting and call for medical help.

Information for doctor, most important symptoms, and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: No further relevant information available.

#### V. FIREFIGHTING MEASURES

Suitable extinguishing agents: CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture: No further relevant information available.

Protective equipment: No special measures required.

#### VI. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Not required.

Environmental precautions: Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up: Absorb with liquid - binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to Section XIII.

Reference to other sections:

See Section VII for information on safe handling.

See Section VIII for information on personal protection equipment.

See Section XIII for disposal information.

#### VII. HANDLING/STORAGE

Precautions for safe handling: No special measures required.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities: No special conditions.

Storage requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

Specific end use(s): No further relevant information available

#### VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Additional information about design of technical systems: No further data.

Control parameters:

Components with limit values that require monitoring at the workplace: Not applicable

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment

General protective and hygienic measures: The usual precautionary measures should be adhered to when handling chemicals.

Breathing equipment: Not required.

Protection of hands: Protective gloves.

Material of gloves: Synthetic gloves.

Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

#### IX. PHYSICAL AND CHEMICAL PROPERTIES

Form: Solution

Colour: Green-Blue-Brown

Odour: Odourless. Odour threshold: Not determined.

pH-value: Not determined.

Melting point/Melting range: Not determined.

Boiling point/Boiling range: Not determined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature: Not determined.

Decomposition temperature: Not determined.

Self-igniting: Product is not self igniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits: Not determined

Vapor pressure at 20°C: Not determined.

Density: Not determined

Relative density: Not determined.

Vapor density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with Water: Fully miscible

Product Application: laboratory chemicals, research use only (RUO)

This Safety Data Sheet is prepared in accordance with Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878. Classification according to Regulation (EC) No 1272/2008 (CLP).

Segregation coefficient (n-octanol/water): Not determined.  
Viscosity dynamic: Not determined.  
Kinematic: Not determined.  
Solvent content: Water  
Other information: No further relevant information available.

#### X. STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.  
Possibility of hazardous reactions: No dangerous reactions known.  
Conditions to avoid: No further relevant information available.  
Incompatible materials: No further relevant information available.  
Hazardous decomposition products: No dangerous decomposition products known

#### XI. TOXICOLOGICAL INFORMATION

Information on hazard classes as defined in Regulation (EC) No 1272/2008:

- Acute toxicity: Not classified
- Skin corrosion/irritation: Not classified
- Eye damage/irritation: Mild irritant effect (rabbit)
- Respiratory/skin sensitisation: Not classified
- Germ cell mutagenicity: No data available
- Carcinogenicity: No data available
- Reproductive toxicity: No data available
- STOT – single exposure: Not classified
- STOT – repeated exposure: Not classified
- Aspiration hazard: Not classified

Information on other hazards:

No data available.

#### XII. ECOLOGICAL INFORMATION

- Aquatic toxicity: No data available.
- Persistence and degradability: No data available.
- Bioaccumulative potential: No data available.
- Mobility in soil: No data available.
- PBT/vPvB assessment: The product does not contain substances meeting PBT/vPvB criteria.

#### XIII. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary, with cleansing agents.

#### XIV. TRANSPORT INFORMATION

IMDG: Marine pollutant: Not applicable

UN number: Not regulated.

Proper shipping name: Not regulated.

Packing group: Not regulated.

Special Provisions: Not regulated.

Special precautions for user Not applicable.

Transport/Additional information: Not dangerous according to the above specifications.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

RID: UN/ID No: Not regulated.

Proper shipping name: Not regulated.

Transport hazard class(es): Not regulated.

Packing group: Not regulated.

Environmental hazard: Not applicable.

Special Provisions: None

ADR: UN number: Not regulated.

Proper shipping name: Not regulated.

Transport hazard class(es): Not regulated.

Packing group: Not regulated.

Environmental hazard: Not applicable.

Special Provisions: None

IATA: UN number: Not regulated.



Product Application: laboratory chemicals, research use only (RUO)

This Safety Data Sheet is prepared in accordance with Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878. Classification according to Regulation (EC) No 1272/2008 (CLP).

Proper shipping name: Not regulated.

Transport hazard class(es): Not regulated.

Packing group: Not regulated.

Environmental hazard: Not applicable.

Special Provisions: None

#### **XV. REGULATORY INFORMATION**

Safety, health, and environmental regulations/legislation specific for the substance or mixture

National regulations

Technical instructions (air):

Class Share in %

NK 10-20

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### **XVI. OTHER INFORMATION**

This MSDS complies with Regulation (EU) 2020/878.

Disclaimer: The information provided is believed to be accurate to the best of our knowledge and is provided in good faith. It is the responsibility of the user to ensure compliance with applicable laws and regulations.

highQu GmbH is not liable for any damage resulting from improper handling or from contact with the products.



Product Application: laboratory chemicals, research use only (RUO)

This Safety Data Sheet is prepared in accordance with Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878. Classification according to Regulation (EC) No 1272/2008 (CLP).

## I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	CATALOGUE NUMBERS	COMPONENTS
Take5™ 1 kb DNA Ladder	DNL01XX	1. Take5™ 1 kb DNA Ladder 2. Take5™ Loading Dye, 6X
Take5™ 100 bp DNA Ladder	DNL02XX	1. Take5™ 100 bp DNA Ladder 2. Take5™ Loading Dye, 6X
Take5™ 50 bp DNA Ladder	DNL03XX	1. Take5™ 50 bp DNA Ladder 2. Take5™ Loading Dye, 6X
Take5™ HR DNA Ladder	DNL04XX	1. Take5™ HR DNA Ladder 2. Take5™ Loading Dye, 6X

XX – can be different numbers/letters depending on product sizes

### COMPANY:

highQu GmbH  
Untere Schloßstrasse 25  
76703 Kraichtal  
Germany  
T: +49 7250 33 13 401  
F: +49 7250 33 11 413  
[info@highQu.com](mailto:info@highQu.com)  
[www.highQu.com](http://www.highQu.com)

**Call 24 hours: Detoxification +49 (0)30 30686 700**

## II. HAZARDS IDENTIFICATION

Component: 2.  
Take5™ Loading Dye, 6X

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 This mixture is classified as not hazardous according to regulation (EC) 272/2008 [GHS]

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void

Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification was made according to the latest editions of the EU-lists and expanded upon from company and literature data.

Label elements: This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

Safety phrases:

35 This material and its container must be disposed of in a safe way.

Other hazards: No information available

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable

## III. COMPOSITION/INGREDIENT INFORMATION

Mixture:

Contains non-hazardous components in aqueous buffer.

Hazardous ingredients (per CLP Regulation):

- Glycerol

CAS No: 56-81-5

EC No: 200-289-5

Conc.: >50%

Classification: Not classified

## IV. FIRST AID MEASURES

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally, the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Induce vomiting and call for medical help.

Product Application: laboratory chemicals, research use only (RUO)

This Safety Data Sheet is prepared in accordance with Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878. Classification according to Regulation (EC) No 1272/2008 (CLP).

Information for doctor, most important symptoms, and effects, both acute and delayed: No further relevant information available.  
Indication of any immediate medical attention and special treatment needed: No further relevant information available.

#### V. FIREFIGHTING MEASURES

Suitable extinguishing agents: CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Special hazards arising from the substance or mixture: No further relevant information available.  
Protective equipment: No special measures required.

#### VI. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Not required.  
Environmental precautions: Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.  
Methods and material for containment and cleaning up: Absorb with liquid - binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to Section XIII.  
Reference to other sections:  
See Section VII for information on safe handling.  
See Section VIII for information on personal protection equipment.  
See Section XIII for disposal information.

#### VII. HANDLING/STORAGE

Precautions for safe handling: No special measures required.  
Information about protection against explosions and fires: No special measures required.  
Conditions for safe storage, including any incompatibilities: No special conditions.  
Storage requirements to be met by storerooms and receptacles: No special requirements.  
Information about storage in one common storage facility: Not required.  
Further information about storage conditions: None.  
Specific end use(s): No further relevant information available

#### VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Additional information about design of technical systems: No further data.  
Control parameters:  
Components with limit values that require monitoring at the workplace: Not applicable  
Additional information: The lists that were valid during the creation were used as basis.  
Exposure controls  
Personal protective equipment  
General protective and hygienic measures: The usual precautionary measures should be adhered to when handling chemicals.  
Breathing equipment: Not required.  
Protection of hands: Protective gloves.  
Material of gloves: Synthetic gloves.  
Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.  
Eye protection: Safety glasses

#### IX. PHYSICAL AND CHEMICAL PROPERTIES

Form: Solution  
Colour: Green-Blue-Brown  
Odour: Odourless. Odour threshold: Not determined.  
pH-value: Not determined.  
Melting point/Melting range: Not determined.  
Boiling point/Boiling range: Not determined.  
Flash point: Not applicable.  
Flammability (solid, gaseous): Not applicable.  
Ignition temperature: Not determined.  
Decomposition temperature: Not determined.  
Self-igniting: Product is not self igniting.  
Danger of explosion: Product does not present an explosion hazard.  
Explosion limits: Not determined  
Vapor pressure at 20°C: Not determined.  
Density: Not determined  
Relative density: Not determined.  
Vapor density: Not determined.  
Evaporation rate: Not determined.  
Solubility in / Miscibility with Water: Fully miscible  
Segregation coefficient (n-octanol/water): Not determined.  
Viscosity dynamic: Not determined.  
Kinematic: Not determined.



Product Application: laboratory chemicals, research use only (RUO)

This Safety Data Sheet is prepared in accordance with Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878. Classification according to Regulation (EC) No 1272/2008 (CLP).

Solvent content: Water

Other information: No further relevant information available.

#### X. STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known

#### XI. TOXICOLOGICAL INFORMATION

Information on hazard classes as defined in Regulation (EC) No 1272/2008:

- Acute toxicity: Not classified
- Skin corrosion/irritation: Not classified
- Eye damage/irritation: Mild irritant effect (rabbit)
- Respiratory/skin sensitisation: Not classified
- Germ cell mutagenicity: No data available
- Carcinogenicity: No data available
- Reproductive toxicity: No data available
- STOT – single exposure: Not classified
- STOT – repeated exposure: Not classified
- Aspiration hazard: Not classified

Information on other hazards:

No data available.

#### XII. ECOLOGICAL INFORMATION

- Aquatic toxicity: No data available.
- Persistence and degradability: No data available.
- Bioaccumulative potential: No data available.
- Mobility in soil: No data available.
- PBT/vPvB assessment: The product does not contain substances meeting PBT/vPvB criteria.

#### XIII. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary, with cleansing agents.

#### XIV. TRANSPORT INFORMATION

IMDG: Marine pollutant: Not applicable

UN number: Not regulated.

Proper shipping name: Not regulated.

Packing group: Not regulated.

Special Provisions: Not regulated.

Special precautions for user Not applicable.

Transport/Additional information: Not dangerous according to the above specifications.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

RID: UN/ID No: Not regulated.

Proper shipping name: Not regulated.

Transport hazard class(es): Not regulated.

Packing group: Not regulated.

Environmental hazard: Not applicable.

Special Provisions: None

ADR: UN number: Not regulated.

Proper shipping name: Not regulated.

Transport hazard class(es): Not regulated.

Packing group: Not regulated.

Environmental hazard: Not applicable.

Special Provisions: None

IATA: UN number: Not regulated.

Proper shipping name: Not regulated.

Transport hazard class(es): Not regulated.

Packing group: Not regulated.



Product Application: laboratory chemicals, research use only (RUO)

This Safety Data Sheet is prepared in accordance with Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878. Classification according to Regulation (EC) No 1272/2008 (CLP).

---

Environmental hazard: Not applicable.

Special Provisions: None

---

#### **XV. REGULATORY INFORMATION**

---

Safety, health, and environmental regulations/legislation specific for the substance or mixture

National regulations

Technical instructions (air):

Class Share in %

NK 10-20

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

---

#### **XVI. OTHER INFORMATION**

---

This MSDS complies with Regulation (EU) 2020/878.

Disclaimer: The information provided is believed to be accurate to the best of our knowledge and is provided in good faith. It is the responsibility of the user to ensure compliance with applicable laws and regulations.

highQu GmbH is not liable for any damage resulting from improper handling or from contact with the products.